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Distance education opportunity for agriculture students at Iowa Central Community College

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By

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Program of Study Committee

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Introduction

As technology continues to improve, the changes that we see in our everyday lives are infinite. Education is among the things that are affected by ever-changing technology. One of the changes that technology has created in field of education is the increasing demand for distance learning. The traditional classroom learning style is no longer the only way an individual can gain knowledge. Students can now take general education classes and even complete entire degrees sitting in the comfort of their own home many miles from the institution through which those degrees will be completed. Implementing a successful distance learning program is essential to becoming a successful institution in the 21st century (White and Bridwell, 2007). Not only is this due to the increased student demand for distance education but also due to research in the field of education stating that traditional styles of learning may not be the best.

Over time, there has been a change in the way that an educator is viewed in the learning process. In the past, education was viewed from a teacher-centered approach where the teacher was in control of the learning environment. Research has since suggested that learning is more efficient if it is done from a learner-centered approach where the teacher is a facilitator of the learning rather than controlling it (White and Bridwell, 2007). Traditional styles of education have the reputation of creating an environment that encourages passive learning and does not individualize an education (Moriba and Edwards, 2013). In fact, in recent studies learners in online courses have performed better than those who are enrolled in face to face courses (Moriba and Edwards, 2013). As we move deeper into this distance learning era, more and more programs are becoming available online. However, some content areas have not had as quick of a transition into the distance learning world. Agriculture is an area in which little research has been done on its popularity in the distance learning realm. Institutions such as Texas A&M,

Texas Tech, and North Carolina State all have successful distance learning programs (Roberts and Dyer, 2005). Since institutions such as these, who are some of the most well-known agricultural schools in the country, have included agricultural courses in an online setting, it may be a trend that other schools should follow to keep up with the changing times in higher education.

Not only are the teaching methods, theories, and delivery platforms changing in the world of education, but the way that colleges are funded have also seen changes over the years. Now more than ever community colleges, colleges, and universities are required to fight for the limited funding that is available both at the state and national level. In Iowa, funding for the community college system comes from a combination of tuition dollars and state aid. In fact, in 2015, 36.1% of community college funding came from state general aid and 52.1 % came from tuition dollars and fees, while local support made up the rest (Madison, 2016). Over the last several years enrollment in community colleges in the state of Iowa has continued to grow. Even though enrollment continued to increase until 2012, the amount of funding from the state general aid has continued to decrease (Cannon, 2012). If the downward trend of state general aid continues it will become increasingly important for community colleges to increase enrollment to maintain an operable budget.

Iowa Central Community College in Fort Dodge, Iowa has a distance learning program that serves not only the area high school and college students, but also students from across the globe. Agriculture courses have not been included in the distance learning department at Iowa Central Community College in the past. However, to meet the needs of our area students and to meet the needs of the area's work force, AGS-113 Survey of the Animal Industry will be added in the Spring of 2019. By adding AGS-113 in an online format Iowa Central will not only

increase enrollment for the institution but will also benefit an already phenomenal agriculture program by offering more selection for its students.

Need

Driven by decreasing populations in rural Iowa and declining funding that was mentioned previously, many community colleges in the state of Iowa are facing budget issues which can only be solved through enrollment. The amount of state funding in Iowa is something that does not look to reverse in its trend in the future. To combat this loss of funding, it is more important than ever that community colleges continue to be enrollment driven. Each student who walks through the door or logs into an online class helps to offset the funds that have disappeared from the state. In fact, in recent years Iowa Central Community College's enrollment has continued to drop. In 2017, Iowa Central Community College experienced a 4% decrease in enrollment campus wide and a 1.4% decrease in credit hours for on-line courses (Iowa Department of Education, 2017). Recruiting students has become essential for Iowa Central Community College given these recent decreases in enrollment. It is essential that Iowa Central Community College provides opportunities for all individuals to have access to an education at their college. In rural areas like Webster County Iowa, where Iowa Central Community College is located, online versions of a course become even more important as distance learning may be the only opportunity some learners have to gain an education.

One of the many jobs that community colleges are tasked with is training the local work force. Like many counties in Iowa, Webster County is an agricultural and farming based area. Most of the workforce in the area that Iowa Central Community College serves is a "blue collar" industrial technology type workforce. Iowa Central must offer courses that train students to meet

the needs of this industrial based workforce. With new ag developments around the area specifically a pork production facility it will be essential that Iowa Central Community College provides the training and courses necessary to meet the needs of this employer. Agriculture courses will be in high demand as this facility continues to grow and having access to agriculture courses in a distance learning environment will be very beneficial to those who may work full-time but still have the goals of gaining a degree in agriculture.

Webster County's population has continually decreased since 1970 ("Population", 2016). The declining rural population creates difficulties for local community colleges such as Iowa Central to increase enrollment in order to offset the loss of state general aid. To keep enrollment at an adequate level it is crucial for Iowa Central to accomplish two goals. First, it is critical to recruit as many local students as possible. Second, students from outside of our local area must be recruited to enroll in Iowa Central courses. Recruiting students from afar comes with additional challenges such as finding housing for the student, as all colleges have a limited amount of residence halls. However, the challenge of finding housing for the students can be eliminated if those students can enroll in an online course. Online courses can also help to recruit our local students out of high school. With many students currently able to take college courses while still in high school it is often the local community college's responsibility to conduct these courses. If Iowa Central Community College can create distance learning courses that are exciting and engaging, it could recruit these local high school students to come finish or pursue a degree close to home.

To best meet the needs of the students who will be enrolling in AGS-113 in a distance learning setting the course will be developed using teaching strategies and program planning that is taught in the Agricultural Education M.S. program at Iowa State University. By conducting a

needs assessment with the students that are enrolled in the course it will allow their needs to be met while taking the course. It will also be essential to build relationships with the students whom will be enrolled in the course as well as the employers in the community so that the course can meet the needs of all those involved.

By implementing AGS-113 Iowa Central Community College is serving in local communities by creating a course for local students, high school and college, to take that will give them the basic knowledge in the field of animal science so they can be a productive member of the agricultural work force. AGS-113 in an online format will all allow students access to the college that may not have the opportunity to do so because of barriers such as distance. By achieving these two goals AGS-113 is allowing Iowa Central Community College the opportunity to generate more revenue to combat the declining state support. By implementing this course and using teaching strategies that were taught in the Agricultural Education M.S. program at Iowa State University such as collaborative learning and individualized instruction students will have the opportunity to work toward earning their college degree at Iowa Central Community College no matter where they live.

Definition of Terms

The key terms in this project are given the following operational definitions.

Artificial Insemination: In this project the term artificial insemination refers to the act of artificially injecting a female with semen with the intention of impregnation for breeding purposes.

Assessment: In this project the term assessment refers to a quiz, unit exam, or final exam that is given to the students at the completion of the module. Each module will consist of either

a quiz or exam per the distance learning department's standards that will cover the content that was presented in that module. Quizzes will typically be 10 questions in length and will be worth 20 points. Quizzes will typically be short answer or fill in the blank questions. Unit Exams will be 25 questions in length and will be worth 100 points. Questions will consist of multiple choice, true/false, short answer, and essay questions. The final exam will be 50 questions in length and will be comprehensive, covering all the content covered in the course. It will consist of questions like those on the unit tests and will be worth 100 points.

Assignments: In this project the term assignments refer to activities that the students will perform for that module. There are numerous activities that are included such as worksheets, review questions, short-essays, video presentations, and a research paper.

Beef Industry: In this project the beef industry refers to all things related to beef cattle. It includes breeds, management practices, feeding schedules, as well as marketing schemes. The term is meant to incorporate the entire process of beef production from reproduction to the products that are produced.

Dairy Industry: In this project the dairy industry refers to all things related to dairy cattle. It includes breeds, management practices, feeding schedules, as well as marketing schemes. The term is meant to incorporate the entire process of dairy production from reproduction to the products that are produced.

Department Outcomes: In this project the term department outcomes refer to the goals of the agricultural department for each student.

Discussion Questions: In this project the term discussion questions refer to a discussion forum that the students will participate in. Each module will have four questions that the

students must answer within that module's forum. The students are also required to respond to their peer's statements to form a discussion group. This is used to create higher levels of thinking and allows students to look at subjects from a different perspective.

Equine Industry: In this project the equine industry refers to all things related to horses. It includes breeds, management practices, feeding schedules, as well as marketing schemes. The term is meant to incorporate the entire process of equine production from reproduction through all aspects of equine management.

Institutional Outcomes: In this project the term institutional outcomes refer to the goals that the institution has for the student. By receiving an education at the institution, the student is expected to gain these values.

Learning Objectives: In this project the term learning objectives refers to the intended out comes of the module. At the completion of a module, the students should be able to perform the learning objective tasks. There is a list of learning objectives for each module.

Module: In this project the term module refers to a section of the course. Each module is one week in length and consists of activities, assignments and discussion questions that will be completed. Each module begins on a Tuesday and will end on a Monday. There are fifteen modules that make up the course.

Module Introduction Video: In this project the term module introduction video refers to a video that will be presented to the students at the beginning of the module. This video will highlight the main topics of the module as well as outline the expectations and assignments for that module. Each module will begin with an introduction video.

Poultry Industry: In this project the poultry industry refers to all things related to poultry production. It includes breeds, management practices, feeding schedules, as well as marketing schemes. The term is meant to incorporate the entire process of poultry production from reproduction to the products that are produced.

Resources: In this project the term resources refer to books, videos, and webpages that are used to present the content. Each module has a list of resources that was used to present material to the student for that module.

Sheep Industry: In this project the sheep industry refers to all things related to sheep production. It includes breeds, management practices, feeding schedules, as well as marketing schemes. The term is meant to incorporate the entire process of sheep production from reproduction to the products that are produced.

Species: The term species refers to a specific breed of farm animal in this project. When the term species is used it is referring to a specific breed of cow, horse, pig, or poultry.

Student Learning Outcomes: In this project student learning outcomes refers to the goals of the course. Meaning by the end of the course the student should be able to perform these tasks.

Swine Industry: In this project the swine industry refers to all things related to swine production. It includes breeds, management practices, feeding schedules, as well as marketing schemes. The term is meant to incorporate the entire process of swine production from reproduction to the products that are produced.

How Curriculum was Developed

When designing the online version of AGS-113 Survey of the Animal Industry, the curriculum was designed to correlate directly with the face to face version of AGS-113 at Iowa Central Community College. This was done to keep departmental approval as well as to allow the transferability of the course. A syllabus for AGS-113 was obtained to keep the student learning outcomes the same. These initial learning outcomes were decided upon by the agricultural department at Iowa Central Community College along with their advisory committee (per Iowa code) which is made up of professionals in the field that have firsthand knowledge of the skillset that students will need to be a contributing member of the work force.

The curriculum will be designed so that each module will meet one or more of the student learning outcomes and the students will be assessed accordingly. Different learning styles will be taken into consideration when designing this course. A wide array of activities will be used so that as many of these learning styles will be met as possible. Some of these activities include reading from the text and completing review questions at the end of the chapter to higher levels of thinking in activities such as video presentation and writing papers. Additionally, basic skills such as math that are proven to be a necessity in the animal industry will be incorporated into the instruction to prepare students for their future careers (Slusher, Robinson, and Edwards, 2011).

When designing this course and the activities that will accompany it meeting the learning needs of adults was the main objective. As with any adult learners the students in this course will come into the course with a wide array of skills, knowledge, and past experiences. When designing the activities for the course it was the goal to maintain a learner-centered environment where the teacher was a facilitator of learning rather than directing it (Galbraith, 2004). Since adult learners typically build off prior experiences and relate new material to those past

experiences the course was designed in such a way that learning was individualized as much as possible. This was done by allowing students to make choices in many of the assignments and projects that will be completed so that they can meet their interests and needs.

Discussion forums will be a foundation of the curriculum in this course. Each module will be accompanied by discussion questions that are based upon the student learning outcomes as well as the learning objectives for each module. Four questions will be placed in the discussion forums and the students will be required to respond to each question as well as respond to their peers. The goal of these discussion boards is to allow the students to interact with one another and gain different points of view regarding the material. The questions will be open-ended and worded in a way that will encourage higher levels of thinking where the student must relate the content that has been covered in the module to real life situations in the agricultural industry. Student collaboration is an important part of adult learning and can be a challenge in a distance education setting. However, by using discussion boards it allows for the collaboration amongst the learners and allows for higher levels of learning to be reached (White and Bridwell, 2004). The instructor will also play an important role in these discussion forums. By responding to students' statements with additional questions it will allow the instructor to facilitate the learners to reach higher levels of thinking. The instructor will be a daily participant in the discussion board. To achieve the maximum points for each module the student must post eight times over the course of four separate days. This policy is in place by the Iowa Central Community College Distance Learning Department and it encourages active participation by the students rather than students only posting to achieve their points. Students posts who do not show critical thinking and active participation in the discussion will not earn points. By keeping

learners engaged in the discussion board the critical learning element of collaboration will be reached in this on-line course.

Another important element of adult learning is that of reflection. By creating an environment in which adult learners reflect on what they have learned they are using critical thinking skills and achieving higher levels of learning (White and Bridwell, 2004). Many of the assignments in this course are short essays in which the learners will reflect of the information they have read or watched in videos and apply it to real world settings. By using writing assignments in this course, it allows me to individualize the material for each student as they can write according to their interests and needs. This course encourages writing and will allow the learners to not only learn about the animal industry but will also make them better writers during the course.

The goal of the curriculum of this course is to encourage critical thinking, effective communication, and personal responsibility for the student based upon an animal science platform. These goals will be accomplished by using a variety of activities such as writing, discussions, and presentations to enhance the students learning. After completing the course, the curriculum will allow the student to possess the skills that are needed to work in entry level fields in the animal industry and will aid the student in completing their educational goals.

Course Content

AGS-113 Survey of the Animal Industry in a distance learning format is a course that encourages the student to explore issues within the animal industry and how those issues affect us as people. According to the Iowa Central Community College course description, the primary emphasis of the course is based on creating knowledge of the different breeds, management

practices, genetic makeup, and nutritional needs of domesticated farm animals. The course is broken down into 15 modules. Each module will last one week and is accompanied with an assignment and assessment. These modules can be broken down into four main categories. Those categories could be described as an introduction to the course and the animal industry, basic animal science, management and production of farm animals, and issues in the animal industry.

As an introduction to the course and the animal industry, the students are presented with basic information regarding the animal industry such as how animals contribute to our human needs. Students are given assignments that are intended to make them more comfortable with the technological platform on which the course is taught. This section of the course is two modules in length and prepares the students for the rest of the course. During these modules, the students are introduced to the main industries that we will be covering in the chapters to follow as well as providing them with information on how these industries have changed over time. Students will investigate the beef, dairy, poultry, swine, equine, and sheep industries and will discuss how these changes over time have affected agriculture. During this segment of the course students are asked to reflect on their prior experiences within the animal industry. By reflecting on their prior experiences, it allows the adult learners the opportunity to build off those prior experiences to gain new knowledge during the course.

The second section of the course is basic animal science knowledge and consists of five modules. During this section, the students will investigate topics such as genetics, nutrition, mating systems, reproduction, animal behavior, digestion, and lactation. All these subjects will be covered broadly and will not be covered at an overly complex level. The goal of teaching these topics is to give the student a foundation in order to understand different management

techniques within each industry that will be covered later. Students will learn the basic components that make up genes and how they affect reproduction and mating. The course will highlight the six fundamental mating types and the students will distinguish between them. After learning the different mating types, the students will relate these genetic combinations to explain how genetic change has been occurring within the animal industry and why. Since the students should now comprehend how genetic combinations work, they will then investigate how this relates to mating systems and allows animal breeders different options to manipulate their genetic lines of animals.

Reproduction and artificial insemination are also discussed during this section of the class. Students will investigate the reproductive process of different animals and the important role in plays in management practices. Artificial insemination is becoming more popular each year. Students will have the opportunity to learn the process of artificial insemination as well as learning about the benefits as well as the risks. A video link will be available where the students can watch the artificial insemination process of a cow.

The next portion of this section of the course deals with nutrition, digestion, and lactation. The mastery of these concepts is critical in order to comprehend information later in the course when species specific management practices are discussed. It is essential for the students to comprehend the digestive process and understand the differences among various species as well as the different nutritional needs for those species. To demonstrate the students' knowledge of nutritional requirements for a certain species, they are required to pick a brand of feed and develop a 2-3-minute sales presentation based on the feed's nutritional content. By creating this presentation, it allows the students to become active learners which will push them to higher levels of thinking. This presentation allows the students the ability to relate what they

have learned to a real-world situation and allows them the freedom and ability to be creative when creating this presentation.

The final module in this section deals with animal behavior. Students will learn why animals act and react the way they do and how they can use this knowledge to implement management practices that will benefit both them and the animal. As part of this module, the students will turn in a paper in which they will write a narrative of an interview with a professional in the animal industry. The student will pick the professional and ask them a series of questions that is developed during the course and then write a two-page essay. Interviewing a professional in the industry will give the student an opportunity to investigate different careers that may interest them as well as having the opportunity to learn about other management practices. The goal of this activity is to encourage the learner to investigate a career that interests them. By doing this it allows the student the ability to think about the advantages and disadvantages of working in the industry and will encourage them to think critically while reflecting on the conversation and writing the paper.

The third section of the course discusses species-specific management. Students will investigate practices within the beef, dairy, poultry, swine, equine, and sheep industries. One of the major assignments of the course falls in this section. Students can pick a breed and will write a 4-page research paper on that breed. This will allow students the freedom to research an animal of interest to them and will allow them to start planning for a future career. During the six modules that make up this section, students will investigate the major breeds of each of those animals and why specific breeds are preferred within the industry. Students will also discuss breeding practices that are used within each of the industries and identify why those practices are preferred. Lastly, the students will discuss management strategies and nutritional needs of all six

of the species that are discussed. Various activities will be used to present this information. Most of the information will be gained from the text, however, journal articles as well as a video from a veterinarian in the swine industry will be used to discuss some of the management challenges one could face within the industries. By the time the third section of this course is complete, a student should be able to complete any tasks associated with an entry level position in any of the six animal industries that are covered.

The final section of the course is only two modules long and deals with animal products as well as issues in the animal industry. This is a short section of the course but is very important as it will allow students the ability to wrestle with some of the challenges they will face when working in the animal industry. Issues such as animal welfare and environmental issues that are faced in the animal industry are discussed in this section. The other module in this section allows the students to understand the grading and judging of animal products. This allows the students the ability to see the result of all the hard work in the animal industry but also gives them the opportunity to gain more knowledge as a consumer. An outline of the class syllabus, teacher policies, and a course outline will be available in the appendices.

Each module of this course will have the same key components. A module introduction video will introduce the topic to the students as well as highlight the key concepts of the module. This module introduction video will also explain the assignment for each module. Voice over PowerPoint will be used to make each video and the goal will be to keep these videos under ten minutes in length so that it allows the learner to stay focused on the video and to manage their time more efficiently. If any module has to much information to keep the video to under ten minutes multiple videos will then be made to allow the learner to watch the video separately so that they can fully comprehend what is being presented rather than losing focus. I only plan to

highlight the key concepts of the video and most of the learning will be left to the learner as research has proven that adult learners are more successful in a learner centered environment rather than a teacher center environment. By only highlighting the content for the module I will be facilitating the learners to engage in the learning on their own which will allow for me to individualize the instruction which can be difficult to do in a distance learning setting. Each learner can dig into the material that is provided through textbook reading, journal articles, and videos and relate this new material to their past experiences in order to create new knowledge.

To assess the content in each of these modules, the students will complete review questions and short essays. This will allow the instructor to assess whether the content that was meant to be learned was comprehended. The instructor will use these homework assignments to assess the online teaching strategies and make any changes that need to be made.

Conclusion

While developing this course I found there to be many challenges. Some of those challenges are created from having to meet the requirements of the college where the course is being taught and others come from developing an on-line course and the difficulty that one faces trying to diversify lessons. Several aspects of the course content included in this course is done so to meet the requirements of the distance learning department at Iowa Central. I agree with some of the policies and disagree with others. One area that I agree with is the implementation of the mandatory discussion boards into the course. It is mandatory that all courses at Iowa Central that are taught in the on-line format are required to use the discussion board as well as the rubric that is included in the syllabus. I believe that by implementing this syllabus, it requires the students to spend more time in the discussion forums and will allow them to dig

deeper into topics than they would without these discussions. I will also play an integral role in these discussions, as I will ask questions to their responses to push them to higher levels of thinking. An area that I do not agree with Iowa Central policy is that I am required to use this textbook. All AGS-113 courses must all use the same text. The text is descriptive and covers the topic well, but it is very old. There have been several new versions of the same text that have been released and I believe it would be beneficial to at least use one of the newer versions.

Designing the class was also a challenge. I found it difficult to implement various activities that would reach different learning styles. My teaching philosophy is one that is centered around both self-directed and experiential learning and it was difficult to include activities that would allow students to learn in either of those manners. I included videos and activities when I could to push the students toward different styles of learning and break up the routine of the typical on-line class. In the future I will continue to brainstorm other activities that I can include to get the students more involved in a hands-on type of experience.

While completing my degree at Iowa State University it was stressed throughout the program that individualization is essential when working with adult learners. I believe that I did a good job designing activities that allowed for individualization in an online setting. This is a key component of my humanistic teaching philosophy where instruction should be individualized to each of the learners and I am a facilitator rather than directing the students learning. Another important element that I learned about teaching adults while completing my coursework is that of building relationships with the learners. I believe building relationships with learners is difficult in an on-line setting, but it is still possible. To accomplish this, I will have to pay a lot of attention to the learners' initial assignments when they have the freedom to chose what to write about. Often, the learner will pick something that is of interest to them and

this will allow me the opportunity to learn about them as a person. This will become important when individualizing learning during the course. By treating each of the learners in this class as an individual and building a relationship with them along with the activities that are planned for the course, I believe that these learners will have the opportunity to not only learn about the animal industry but also will allow them to become better writers and critical thinkers during the process.

Overall, I believe the course will be a success for both the students and the college. The online version of AGS-113 will allow all students the ability to take an agricultural course at Iowa Central and will hopefully not only excite them about agriculture but also about Iowa Central Community College. By implementing AGS-113 in an online version, Iowa Central Community College is providing students a quality course while allowing them the freedom to participate in whichever location they choose. Not only will this course benefit the students but will also benefit the agricultural industry as well as Iowa Central Community College by increasing enrollment in an era where enrollment is critical.

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Appendices

Syllabus

Course Name: Survey of the Animal Industry

Course Number: AGS 113

Course Department: Ind. Tech

Course Term: Spring 2019

Last Revised by Department: Fall 2016

Total Semester Hour(s) Credit: 3

Total Contact Hours per Semester:

Lecture**:** X Lab: Clinical: Internship/Practicum:

Catalog Description: The course explores issues impacting the United States and the international animal industry. The main emphasis of the course is on different breeds, basic management, and marketing of farm animals. The animals include beef and dairy cattle, companion animals, horses, poultry, sheep, swine, and their products.

Pre-requisites and/or Co-requisites: None

Textbook(s) Required: Taylor & Field, Scientific Farm Animal Production, 9th Edition, Prentice-Hall, Upper Saddle River, New Jersey, 2004, ISBN # 0-13-048170-X

Access Code: N/A

Materials Required: Access to computer with internet and a calculator.

Suggested Materials: Folder and notebook to keep notes in while reading the text.

Institutional Outcomes:

Critical Thinking: The ability to dissect a multitude of incoming information, sorting the pertinent from the irrelevant, in order to analyze, evaluate, synthesize, or apply the information to a defendable conclusion.

Effective Communication: Information, thoughts, feelings, attitudes, or beliefs transferred either verbally or nonverbally through a medium in which the intended meaning is clearly and correctly understood by the recipient with the expectation of feedback.

Personal Responsibility: Initiative to consistently meet or exceed stated expectations over time.

Department/Program Outcomes:

a. **Enhance our partnerships with local industry to fulfill their employment and training needs.**

b. **Students will possess the skills needed to be gainfully employed in their chosen career path.**

c. **Students will demonstrate competency in the skills needed to satisfy their educational goals.**

Student Learning Outcomes:

a. **Explain how animals contribute to human needs.**
b. **Review different animal breeding systems and reproduction.**
c. **Explain artificial insemination in animals.**
d. **Describe how lactation works.**
e. **Discuss animal nutrition and its importance.**
f. **Discuss feeding, managing and the breeding of dairy cattle.**
g. **Review breeds, breeding, feeding and managing of beef cattle.**
h. **Explain swine breeding, feeding, managing and breeds.**
i. **Describe the feeding, managing, and breeding of sheep and distinguish sheep breeds.**
j. **Discuss poultry breeding, feeding and management.**
k. **Explain horse feeding, managing, and breeding.**
l. **Describe different animal behavior and animal health.**
m. **Discuss different marketing methods.**
n. **Discuss issues in animal science.**

Modules:

This course is broken down into 15 modules. Each module will last one week. The module with consist of a reading assignment as well as some form of homework. The module will end with an assessment which will be in the form of a quiz or exam. Below is the module schedule:

Module 1- Animal Contributions to Human Needs.

Module 2- An Overview of the Livestock and Poultry Industries.

Module 3- Genetics

Module 4- Mating Systems

Module 5- Reproduction and Artificial Insemination.

Module 6- Nutrients, Digestion, and Lactation.

Module 7- Animal Behavior

Module 8- Sheep Production

Module 9- Swine Production

Module 10- Beef Production

Module 11- Dairy Production

Module 12- Horse Production

Module 13- Poultry Production

Module 14- Animal Products

Module 15- Issues in Animal Agriculture.

College Procedures: All college-wide procedures are in the Iowa Central Community College Student Handbook**.**

Assessments:

Chapters Covered:
1,2,3,5,8,10,11,12,13,14,15,16,19,22,25,26,27,28,29,30,31,32,33,34, Breeds of livestock, and Companion Animals.

3 Unit Exams (100 points each).

T/F, Multiple Choice, and Short Answer

1 Comprehensive Final (100 points)

Same type of questions as the Unit Exams.

Homework: End of Chapter Questions and Breed Matrixes

Quizzes: 11 quizzes (20 points each)

Projects: Students will interview a professional in the animal industry and write a two-page paper on it (50 points). Students will create a 5-7-minute sales video selling a feed based on its nutritional value (30 points). Students also do breed research paper. Each student will choose a breed of animal to write a four-page research paper over (100 points).

*Please note that assessments are subject to change

Non-discrimination Statement:

It is the policy of Iowa Central Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family or marital status in its programs, activities, or employment practices as required by the Iowa Code §§ 216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C. §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), Age Discrimination Act of 1975 (34 CFR Part 110), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.).

If you have questions or complaints related to compliance with this policy, please contact Kim Whitmore, Director of Human Resources, phone number 515-574-1138, whitmore@iowacentral.edu; or the Director of the Office for Civil Rights, U.S. Department of Education, Citigroup Center, 500 W. Madison, Suite 1475, Chicago, IL 60661, phone number 312-730-1560, fax 312-730-1576.

Disability/Accommodation Services:

If you have a request for an accommodation based on the impact of a disability, it is Iowa Central's policy that you contact the Academic Assistance & Accommodations Coordinator to discuss your specific needs and to provide supporting information and documentation, so we may determine appropriate accommodations. The office for accommodations is in the Academic Resource Center, and it can be reached by calling 515-574-1045. For online information about accommodations, please go to www.iowacentral.edu/accommodations.

Bias-Free Classroom Statement:

American Agricultural History maintains high standards of respect in regard to individual beliefs and values when selecting classroom materials including textbooks, project activities, power points, videos, presentations, and classroom discussions.

It is our belief that all people have the right to obtain an education within our department/program courses free of bias, with full respect demonstrated to all who enroll in the courses of this department/program.

Instructor Class Policies

Course Number: AGS-113

Instructor Name: Terry Coleman

Instructor Phone: (515)574-1089

Instructor Email: coleman@iowacentral.edu

Class Start Date: 8/28/2018

Class End Date and Time: Ends on 12/18/2018 at 11:59 pm (CDT/CST)

CLASS SPECIFIC POLICIES:

a. Assessments:

This table illustrates all course work for AGS-113 and a breakdown of points:

Meet Me	10 points
Short Essays/ Worksheets/ Review Questions	12 assignments @ 20 points each =240 points
Quizzes	11 quizzes @ 20 points each =220 points
Discussions	15 discussions @ 10 points each =150 points
Interview of a Professional in Industry	50 points
Video Sales Presentation	30 points
Species Research Paper	100 points
Exams	4 exams @ 100 points each =400 points

Total= 1200 points

*Please note that assessments are subject to change.

b. Communication:
Students should communicate with me via email. I will typically respond to an email within 24 hrs. Always communicate via email first as I am not always in my office to answer the phone. If the issue requires a phone conversation we can set that up through email.

c. Computer Considerations:
Access to a computer and a reliable internet connection is a must. Students are expected to submit assignments in .doc, .docx, or otherwise stated within the assignment. Students should also have access to an external storage device in order to save and/or backup documents/files.

d. Extra Credit Policy:
There is no extra credit available for this course.

e. Final Exam Policy:
The final exam will be comprehensive in nature and will be made up of questions like the questions used on the unit exams. The final exam must be completed by the end of module 15.

f. Finish Class Early:
Students are not allowed to work ahead and finish online classes early. All activities are required to correspond within the week in which it is due including all assignments, assessments, forum, etc.

g. Grade Book:
Your grade book can be accessed through TritonPass. This is where you can see the complete listing of all activities that are factored into your final grade in this class.

h. Grading Expectations:
Grades for activities will be graded within 48 hours. In some situations where the assessment activity is a large project, paper, etc, that may consume longer amounts of time to grade, please allow for some additional time for grades and feedback to be returned to you.

i. Grading Policy/Scale:
A standard grading scale will be used for this course. Your letter grade will be determined by the percentage you have in the class according to the scale below.

89.5 – 100 = A

79.5 – 89.4 = B
69.5 – 79.4 = C
59.5 – 69.4 = D
0 – 59.4 = F

j. Group Work/Collaboration:
Group work and/or collaboration is NOT allowed in this class and is considered cheating. Those found to have been cheating will be handled via the Scholastic Dishonesty Policy below.

k. Late Work Policy:
Late work will not be accepted in this course. All activities within a module must be completed by Monday nights at 11:59 pm central time.

l. Missing/Items Not Turned in:
Any work not submitted will result in a zero for that activity which will impact your final percentage score for this class and may result in a deduction of your final grade.

m. Online Help Desk:
1-866-895-2456, 515-574-1100, or on campus dial extension 1100
Email Address – helpdesk@iowacentral.edu, Submit a Trouble Ticket
https://des.iowacentral.edu/hesk

Hours: Monday – Sunday 7:00 am to 8:00 pm Central Standard Time

Where to Find Us: Students can find the Online Help Desk in the Distance Learning Office, which is located in the north end of the Student Support Services Building – Room 101, on the Fort Dodge main campus.

Online Help Desk Knowledgebase (online support tools):

https://des.iowacentral.edu/hesk/knowledgebase.php

n. Participation/Attendance Policy:
Students are required to participate in the forums within each class in order to obtain the points each week. Forum posts made must be made within the corresponding week or they will not be counted.
The information below describes additional details and the rubric used to obtain points per week for participating in the forums.

Participation Rubric

Number of Posts Related to the Topic

Days Posted	1	2	3	4	5	6	7	8 +
1	1 point	1 point	1 point	1 point	2 points	3 points	3 points	4 points
2		1 point	1 point	2 points	3 points	4 points	5 points	6 points
3			1 point	2 points	3 points	5 points	7 points	8 points
4 +				2 points	4 points	6 points	8 points	10 points

Students can receive a maximum of 10 points per week

Participation:

- Posts made to Meet-n-Greet, FAQ's, or other generic comments will be counted as Not Related.
- Participation points are based on how many days a student posts and the number of related posts per week.
- Respect other student's opinion(s) and cordially ask your questions.
- Simply posting "I agree" or "You are correct" will be considered Not Related posts.
- Comment on other classmates post with probing questions.
- Participation points can only be earned in the current week – Posts made to future or previous weeks will be marked Not Related.

Related vs Not Related:

Related posts are:

- Meaningful and insightful
- Relevant to the topic and is quality information
- Demonstrating an understanding of the material
- Expressive of personal opinions or counter arguments in a way that is respectful to students and instructor

- Written in complete sentences and free of grammatical errors. This may not be an English class, but it is college level. One error is accepted but multiple errors are not.

Not Related posts are:

- Short statements that lack an understanding of the material
- Repeat what others have stated and has no original information or additional insight
- Demeaning or negative toward another student or instructor
- Not relevant to the topic or details regarding the topic are not clear
- No supporting information behind main idea
- Written in incomplete sentences and/or containing more than one grammar/spelling error
- Those that contain plagiarism or posts that fail to cite an outside source that was used

Think of these questions when reading other classmates posts:

- What do you agree with, specifically?
- Why do you think your classmate made a good point?
- How might what be stated help you understand the ideas from the reading or assignment activity?
- What kind of ideas do you associate with the given responses?
- (Explain your answers in complete sentences.)

FAQ Forum:

The course FAQ forum can be used to ask the instructor or other student's questions pertaining to the course. You can use this forum as a question and answer forum or simply as an open educational forum. It is an open class forum for all to see, all posting in the FAQ should always be done with the purpose of expanding your educational experience in a respectful way to all. Please read all new posts to the weekly FAQ forum as you may find the comments/questions informative and class updates may be posted here.

You are encouraged to interact with your fellow classmates in the FAQ forum, but these posts will not be counted toward your weekly participation points and will be marked "Not Related."

o. Personal Responsibility:
Students are expected to give their best effort within this course. If you run into issues while completing this course do not hesitate to email me and we can work through them. However, part of the college experience is learning to work through issues on your own so please make an honest attempt to solve those issues. As an instructor I want to see you succeed both in the classroom and out of the classroom and will do everything in my power to make that happen so when you do have issues please let me know.

p. Previous Work:
Students are required to produce work that was completed by the student. If work from a previous course fits the assignment you are welcome to use that work. However, I suggest you change it to fit the assignment as these assignments will most likely be different than any assignment you have done in another course.

q. Software Items:
Students will need access to INET.

r. Standards for Written Work:
All papers and essays written for this course will be done using APA format. Proper citing will be required and a portion of your grade for each of those assignments will be based off your ability to use APA formatting.

s. Scholastic Dishonesty Policy:
Students whom plagiarize or cheat on any activity will fail that activity. If the student is caught plagiarizing or cheating a second time, they will fail the course.

t. Turnitin.com Statement:
We will not be using turnitin.com in this class.

u. Withdrawal From Class:
If you should need to withdraw from class, you will need to complete the request form within WebAdvisor titled "Drop/Withdraw from Class". Please be aware of the withdraw periods as this may affect refunds periods and/or the possibility of withdrawing to avoid receiving a final grade. These dates can be found on the Welcome Email sent to you at the beginning of class. Not submitting work in a class does not constitute a withdrawal.

v. Weekly Dates & Deadlines:
Online classes require that students work on the "Topic" in iNET that correlates to the week of the semester. Students cannot work ahead nor can late work be submitted (see Late Work Policy section for further details).
Each week begins on Tuesday and will end on the following Monday at 11:59 pm (CDT/CST).
For specific dates and schedule, please click here www.iowacentral.edu/online_learning/weekly_schedule.asp.

w. Other:

Student Acknowledgement

As a student in this class, I agree to the instructor's policies outlined in this handout and the course syllabus. I understand that failure to comply with these policies could affect my success in this class. I have had an opportunity to ask questions. By remaining in this class, I agree to the policies above.

In order to complete the Student Acknowledgement Agreement and move on into the class, complete the Student Acknowledgement Quiz in your class. It is a one question quiz regarding the items within this document. No points/grades are given for this quiz. If you do not take the quiz, the iNET system will not allow you to submit/upload/attempt the first activity in this class and zero points will be assigned to the first activity. Once

you complete the Student Acknowledgement Quiz and agree to the policies, you will then be able to access the activity.

AGS-113 Module Outline

Module 1: Course Introduction and Animal Contributions to Human Needs

Learning Objectives:

Students will become familiar with the materials and expectations of the course.

Students will read and understand the course syllabus.

Students will identify animal's contributions to food needs.

Students will identify animal contributions to clothing and non-food products.

Students will identify animal contributions to recreation.

Resources:

Course and Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 1.

Assignments:

Watch introduction video.

Become familiar with course syllabus and due dates that are associated with assignments.

Read Chapter 1 in student text book.

Complete the Meet Me portion of class on INET (10 points).

Write a short one-page essay describing your past experiences with the animal industry. If you do not have past experiences describe what you would expect your experiences in the animal industry will be in the future (20 points).

Assessment:

Complete Quiz 1 (20 points).

Discussion Questions:

What changes have occurred in the animal industry in the last 100 years and what changes can we expect to see in the next 100 years?

What role do animals play in the difference that is seen between advanced countries and developing countries daily calorie supply?

What are some ways that developing countries whom struggle to raise livestock for food could use the animal industry to produce these necessary calories for their people?

In your opinion what is the most important role animals play in our lives? Is it food, clothing, power, or companionship? Use facts to support your answer.

Module 2: An Overview of the Livestock and Poultry Industries.

Learning Objectives:

Students will become familiar with the beef industry.

Students will become familiar with the dairy industry.

Students will become familiar with the equine industry.

Students will become familiar with the poultry industry.

Students will become familiar with the sheep industry.

Students will become familiar with the swine industry.

Students will develop questions that will be used to interview a professional within one of these industries.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 2.

Assignments:

Watch module introduction video.

Read Chapter 2 in student text book.

Students will develop a map or graph that shows where dairy cattle, beef cattle, swine, horses, poultry, and sheep are most prevalent around the world. Be creative. You can develop a world map, or you can create a graph showing the parts of the world that carries the most of each species (20 points).

Assessment:

Complete Quiz 2 (20 points).

Discussion Questions:

Develop 7 questions that could be used to interview a professional within one of these industries. Post results to the discussion board. We will use this discussion to develop a list of questions for the class to use while conducting their interviews.

In what ways has the integration and concentration of animal industries affected the economies of both rural and urban America?

What impact do you see aquaculture having on the animal industries in the coming years?

What are the advantages and disadvantages of commercialization of the animal industry?

What do you think is responsible for the idea that the number of dairy cows has decreased over the last 5 decades, but the amount of milk produced has increased?

Module 3: Genetics and Genetic Change

Learning Objectives:

Students will identify the role that DNA and RNA play in genetics.

Students will be able to identify and describe the six fundamental mating types.

Students will discuss the role of biotechnology in the animal industry.

Students will identify and discuss genetic change in the livestock industry.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 12 and 13.

Assignments:

Watch module introduction video.

Read Chapters 12 and 13 in student text book.

Complete the review questions at the end of chapter 12 (20 points).

Assessment:

Complete Quiz 3 (20 points).

Discussion Questions:

What evidence have you seen in the animal industry that indicates genetic change and what other changes do you expect to see in the future?

What role do you believe genetics play in the agricultural economy? Use information from your text to support your answer.

Independent culling level is the most prevalent type of selection. Do you see this type of selection benefiting certain species more than others?

Why do you believe Artificial Insemination is used more in dairy cows than any other type of species of farm animals? What other species do you believe could benefit the most from AI?

Module 4: Mating Systems

Learning Objectives:

Students will define inbreeding, linebreeding, outcrossing, and crossbreeding and identify the advantages and disadvantages of each.

Students will identify how new lines or breeds are developed.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 14.

Assignments:

Watch module introduction video.

Read chapter 14 in student text book.

Submit the list of questions you plan to ask when conducting your interview of a professional in the animal industry. Should be submitted in a word document. Refer to the discussion in Module 2 for some ideas of questions to ask (20 points).

Conduct an interview of a professional within the animal industry using the questions that were developed in module 2. The assignment description can be found using this link. The final paper will be due during module 7.

Assessment:

Complete Quiz 4 (20 points).

Discussion Questions:

In what instances may linebreeding be an advantageous choice in the animal industry and why?

In what ways do you believe that crossbreeding should be used within the animal industry?

Do you believe that outcrossing or grading up is a more successful choice of breeding for cattle or horses and why?

Is there any instance in which you believe that intensive inbreeding should be used within the animal industry?

Module 5: Reproduction and Artificial Insemination

Learning Objectives:

Students will identify the reproductive organs of both male and female animals.

Students will identify the stages of pregnancy in farm animals.

Students will be able to define parturition and identify the important role it plays in management practices.

Students will identify the process of artificial insemination including the collection of semen and the insemination of the female as well as the role in plays in management practices.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 10 and 11.

Artificial Insemination Video https://tune.pk/video/2236042/Artificial-Insemination-in-Cattle

Assignments:

Watch module introduction video.

Read chapters 10 and 11 in student text book.

Watch artificial insemination video.

Students will write a short one-page essay discussing the advantages of artificial insemination and why it is used (20 points).

Assessment:

Unit 1 Exam (100 points).

Discussion Questions:

Pick a species of animal and describe what reproductive traits are most important to management practices of that species.

What does the role of timing of insemination play in the management of a sheep or cattle herd and in your opinion when is the best time of insemination for that species?

Why do seasonal effects play an important in reproduction and as a livestock breeder why is this important information to know?

How is poultry reproduction different from farm mammals and do you believe this is an advantage in terms of management practices and why?

Module 6: Nutrients, Digestion, and Lactation

Learning Objectives:

Students will define what a nutrient is and what role it plays in animal life.

Students will identify which nutrients are most important and how to evaluate feeds accordingly.

Students will identify the digestion process and how it differs among ruminant and monogastric stomachs.

Students will define carnivores, omnivores, and herbivores and discuss how it affects nutrition.

Students will define lactation and identify the factors that affect it.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 15, 16, and 17.

Assignments:

Watch module introduction video.

Read chapters 15, 16, and 17 in student text.

Students will go to feed store and pick an animal feed product. Students will then research the ingredients and nutritional content of the feed and create a 3-5-minute video in which they will give a sales presentation based off the nutritional value of the product (30 points).

Assessment:

Complete Quiz 5 (20 points).

Discussion Questions:

Describe what you believe the best feeding schedule is for ruminant stomached animals and why?

Describe what you believe the best feeding schedule is for monogastric stomached animals and why?

Describe three roles that lactation plays in cattle.

What factors must be included when determining the type of feed that animals need within a species? (Meaning if you have two animals of the same species should they be fed the same?)

Module 7: Companion Animals and Animal Behavior

Learning Objectives:

Students will define the major systems of animal behavior.

Students will discuss how understanding animal behavior can help management practices.

Students will define companion animals and identify their needs.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 22 and chapter 1 (pg. 15).

Assignments:

Watch the module introduction video.

Read chapter 22 in student text book as well as the section on companion animals on pg. 15.

Interview with a professional within the animal industry is due. This paper is based off the list of questions that was discussed in module 2. Directions and guidelines for your paper can be found by clicking on the link provided (50 points).

Assessment:

Complete Quiz 6 (20 points).

Discussion Questions:

In your opinion how can understanding animal behavior in terms of handling and restraint play a role in profit margin of a herd or flock?

Which of the two types of conditioning discussed in the text do you believe is most effective in the training of companion animals and why?

How effective do you believe the trial and error method is for changing animal behavior? In which instances do you believe it should be used?

Interactions with humans is an integral part of a farm animal's life. As a professional in the animal industry what do you believe you can do to make this transition easiest on both the animals and you?

Module 8: Sheep Production

Learning Objectives:

Students will identify different types of sheep breeds and the purpose they serve within the animal industry.

Students will identify different sheep breeding techniques.

Students will identify the requirements for an effective sheep feed plan.

Students will discuss management practices within the sheep industry that affect profitability.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 31 and 32.

Assignments:

Watch module introduction video.

Read chapters 31 and 32 from student text.

Complete sheep breed matrix (20 points). During modules 8-13 you will be required to create breed matrixes. You can do this using excel or a word table. You are to include each breed that you come across in each module and include it in your matrix. Please keep a separate matrix for each module and submit it at the end of your module as your assignment. You are required to have 7 breeds for each module, but you can include more if you would like. Keep these matrixes when you are finished with this course as they may help you later in any animal science courses you take. I have included an example below.

Breed Name	Breed Description	Brief History	Positive/Negative Traits
Angus	Beef cattle that are polled and black in color.	Originated in Sweden and was introduced to the United States in 1873.	Calve very easily and grow quickly after. One of the top choices of consumers.
Next Breed	Describe breed	History of breed	Traits of breed

Begin working on species research paper which will be due during module 14. Here is a link to the instructions for that paper.

Assessment:

Complete Quiz 7 (20 points).

Discussion Questions:

If you were going to manage a sheep operation what breed of sheep would you choose to be most successful and why?

Explain why crossbreeding is very advantageous in the sheep industry and why.

Discuss what a proper feed schedule will look like for finishing lambs. How could you maximize your profit while giving the lambs all the nutrients needed to gain weight?

As with any species disease can be very costly with sheep. What are some of the most common diseases and in your opinion, what is the best way to avoid or treat these conditions?

Module 9: Swine Production

Learning Objectives:

Students will identify and describe the major swine breeds.

Students will identify swine breeding practices and explain why they are used.

Students will identify nutritional needs required by swine and the role they play in swine feeding systems.

Students will develop an understanding of swine management practices.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 29 and 30.

Swine biosecurity video from swine veterinarian.

Assignments:

Watch module introduction video.

Read chapters 29 and 30 in the student text.

Watch swine biosecurity video.

Complete swine breed matrix (20 points). During modules 8-13 you will be required to create breed matrixes. You can do this using excel or a word table. You are to include each breed that you come across in each module and include it in your matrix. Please keep a separate matrix for each module and submit it at the end of your module as your assignment. You are required to have 7 breeds for each module, but you can include more if you would like. Keep these

matrixes when you are finished with this course as they may help you later in any animal science courses you take. I have included an example below.

Breed Name	Breed Description	Brief History	Positive/Negative Traits
Angus	Beef cattle that are polled and black in color.	Originated in Sweden and was introduced to the United States in 1873.	Calve very easily and grow quickly after. One of the top choices of consumers.
Next Breed			

Continue working on species research paper which is due in module 14.

Assessment:

Unit 2 Exam (100 points).

Discussion Questions:

It is said that feed costs account for 60-70% of total production costs in the swine industry. In your opinion, what is the most effective way to keep your costs as low as possible yet meet the nutritional needs of your pigs?

After watching the video on biosecurity in your opinion how can we as professionals in the swine industry best prevent the spread of disease?

Environmental management continues to become a larger issue in the swine industry. Describe one way that the waste of the swine industry can help other areas of agriculture. Do you think this is effective?

If you were managing feeder pigs how would you minimize the stresses that typically encompass such as fatigue, hunger, thirst, temperature changes, and diet changes? Describe your ideal feeder pig facility and the practices you would perform to minimize these stresses.

Module 10: Beef Production

Learning Objectives:

Students will identify and describe the major beef cattle breeds.

Students will identify beef cattle breeding practices and explain why they are used.

Students will identify nutritional needs required by beef cattle and the role they play in beef cattle feeding systems.

Students will develop an understanding of beef cattle management practices.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 25 and 26.

Assignments:

Watch module introduction video.

Read chapters 25 and 26 in student text.

Complete beef cattle breed matrix (20 points). During modules 8-13 you will be required to create breed matrixes. You can do this using excel or a word table. You are to include each breed that you come across in each module and include it in your matrix. Please keep a separate matrix for each module and submit it at the end of your module as your assignment. You are required to have 7 breeds for each module, but you can include more if you would like. Keep these matrixes when you are finished with this course as they may help you later in any animal science courses you take. I have included an example below.

Breed Name	Breed Description	Brief History	Positive/Negative Traits
Angus	Beef cattle that are polled and black in color.	Originated in Sweden and was introduced to the United States in 1873.	Calve very easily and grow quickly after. One of the top choices of consumers.
Next Breed			

Continue working on species research paper which is due during module 14.

Assessment:

Complete Quiz 8 (20 points).

Discussion Questions:

After reading the chapters on artificial insemination and beef cattle management do you believe artificial insemination or turning bulls out with cows is the best breeding practice to maximize profit margins and why?

After reading chapter 26 why do you believe there is a cyclical nature of profitability in the beef industry?

What do you believe are the most important factors in being profitable in the feed yard business?

Which factors do you believe are most important when deciding on replacement bulls and heifers?

Module 11: Dairy Production

Learning Objectives:

Students will identify and describe the major dairy breeds.

Students will identify dairy breeding practices and explain why they are used.

Students will identify nutritional needs required by dairy cattle and the role they play in dairy feeding systems.

Students will develop an understanding of dairy management practices.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 27 and28.

Journal article *Challenges and Opportunities for New and Beginning Dairy Producers: A Pennsylvania Perspective.*

Assignments:

Watch module introduction video.

Read chapters 27 and 28 in student text.

Read journal article on issues new dairy farmers face. https://www.joe.org/joe/2011june/rb2.php

Complete dairy cattle breed matrix (20 points). During modules 8-13 you will be required to create breed matrixes. You can do this using excel or a word table. You are to include each breed that you come across in each module and include it in your matrix. Please keep a separate matrix for each module and submit it at the end of your module as your assignment. You are required to have 7 breeds for each module, but you can include more if you would like. Keep these matrixes when you are finished with this course as they may help you later in any animal science courses you take. I have included an example below.

Breed Name	Breed Description	Brief History	Positive/Negative Traits
Angus	Beef cattle that are polled and black in color.	Originated in Sweden and was introduced to the United States in 1873.	Calve very easily and grow quickly after. One of the top choices of consumers.
Next Breed			

Continue working on breed research paper which is due during module 14.

Assessment:

Complete Quiz 9 (20 points).

Discussion Questions:

After reading the article from the journal of extension what do you think needs to take place to make the transition in dairy farming easier for new farmers?

After reading chapter 27 which primary dairy breed would you choose to maximize your profits on a dairy farm and why?

Of the tools available to dairy breeders which do you think is most helpful and why?

In chapter 28 the text discussed the effects of heat stress. As a dairy manager what adaption strategies do you believe you could put into place to not only improve the health of your heard but to maximize your profits?

Module 12: Horse Production

Learning Objectives:

Students will identify and describe the major horse breeds.

Students will identify equine breeding practices and explain why they are used.

Students will identify nutritional needs required by horses and the role they play in equine feeding systems.

Students will develop an understanding of equine management practices.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 33 and 34.

Assignments:

Watch module introduction video.

Read chapters 33 and 34 in student text.

Complete horse breed matrix (20 points). During modules 8-13 you will be required to create breed matrixes. You can do this using excel or a word table. You are to include each breed that you come across in each module and include it in your matrix. Please keep a separate matrix for each module and submit it at the end of your module as your assignment. You are required to have 7 breeds for each module, but you can include more if you would like. Keep these matrixes when you are finished with this course as they may help you later in any animal science courses you take. I have included an example below.

Breed Name	Breed Description	Brief History	Positive/Negative Traits
Angus	Beef cattle that are polled and black in color.	Originated in Sweden and was introduced to the United States in 1873.	Calve very easily and grow quickly after. One of the top choices of consumers.
Next Breed			

Assessment:

Complete Quiz 10 (20 points).

Discussion Questions:

In your opinion, how has the horse industry changed over the last 100 years and how do you foresee it changing in the next 100 years?

Based on what you read in chapter 33 which breed of horse do you believe is the best "all-around" horse? Meaning which breed can perform any task you would ask of them whether it be draft work, pleasure, cow work, or speed work.

After reading chapter 34 what do you believe the role of exercise plays in determining the nutritional value that a horse requires?

Describe your ideal equine management facility. Why do you believe this is the best type of facility for equine management?

Module 13: Poultry Production

Learning Objectives:

Students will identify and describe the major poultry breeds.

Students will identify poultry breeding practices and explain why they are used.

Students will identify nutritional needs required by poultry and the role they play in poultry feeding systems.

Students will develop an understanding of poultry management practices.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 35.

Assignments:

Watch module introduction video.

Read chapter 35 in student text.

Complete poultry breed matrix (20 points). During modules 8-13 you will be required to create breed matrixes. You can do this using excel or a word table. You are to include each breed that you come across in each module and include it in your matrix. Please keep a separate matrix for each module and submit it at the end of your module as your assignment. You are required to have 7 breeds for each module, but you can include more if you would like. Keep these matrixes when you are finished with this course as they may help you later in any animal science courses you take. I have included an example below.

Breed Name	Breed Description	Brief History	Positive/Negative Traits
Angus	Beef cattle that are polled and black in color.	Originated in Sweden and was introduced to the United States in 1873.	Calve very easily and grow quickly after. One of the top choices of consumers.
Next Breed			

Continue working on breed research paper which is due in module 14.

Assessment:

Unit 3 Exam (100 points).

Discussion Questions:

There are many different species that fall under the term poultry. If you had to pick one species of poultry that you believe would be the most profitable to manage which would it be and why?

What factors do you believe most effect the profitability of poultry production and why?

What are the risks and benefits that are associated with free range production of poultry? Do you believe the risks are worth the rewards?

What do you believe is the ideal housing for broilers and why?

Module 14: Animal Products

Learning Objectives:

Students will identify the factors that effect that affect wool production and the value of wool.

Students will discuss the production and processing and production of wool and mohair.

Students will identify where cuts of meat come from on animals.

Students will describe the USDA quality and yield grades of beef, pork, and lamb.

Students will describe the USDA grades for poultry and eggs.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 6 and 8.

http://www.heggiesofhereford.co.uk/meat-cuts

Assignments:

Watch module introduction video.

Read chapters 6 and 8 in student text.

Breed research paper is due (100 points). Link to the directions can be found in module 8.

Assessment:

Complete Quiz 11 (20 points).

Discussion Questions:

How does understanding the grading systems of the USDA benefit you not only as a possible manager but also as a consumer?

Why do you believe there are no USDA grades for feeder lambs and what does this mean for the consumer?

What is marbling and what role does it play in USDA grades of beef? Do you believe this accurately grades a cut of beef?

What factors do you believe affect the value of wool the most and why?

Module 15: Issues in Animal Agriculture

Learning Objectives:

Students will recognize the difference between animal welfare and animal rights.

Students will recognize the environmental issues that are associated with the animal industry.

Resources:

Module Introduction Video

Scientific Farm Animal Production: An Introduction to Animal Science chapter 23.

Animal Welfare video made by PRCA http://www.prorodeo.com/prorodeo/livestock/livestock-welfare-resources

Assignments:

Watch module introduction video.

Read chapter 23 in student text.

Watch PRCA animal welfare video. After watching video write a short one-page essay on whether you believe the video is an effective way to promote animal welfare and whether other organizations should follow suit.

Assessment:

Comprehensive Final Exam (100 points)

Discussion Questions:

Look at table 23.5. Do you believe this code of ethics adequately covers the Colorado Cattlemen's Association in terms of animal's welfare? If not, what else needs to be included? If yes, what other organizations do you believe need to adopt a similar code of ethics?

Waste management is one area that is of environmental concern in the animal industry. Using manure as a fertilizer is one way in which waste management can be used in a positive manner. However, many of the public still believes this is an issue. How would you respond to these individuals?

Antibiotic use in farm animals has been a controversial topic for several years. How do you feel antibiotics should be used in the animal industry and why?

The use of public land for animal grazing has been a debated topic over that last several years. Do you believe that public should be allowed for grazing and why?

About Me

Hello, I am Terry Coleman and I will be your teacher for AGS-113 Survey of the Animal Industry. I am originally from northern Wisconsin and now live in Fort Dodge, IA. While growing up we always had horses and cattle, and this is where my love for agriculture was formed. After graduating high school, I chose to attend Missouri Valley College on a rodeo scholarship where I majored in elementary education. My time spent competing in both college and professional rodeo also helped form my agricultural roots. I have always had a great respect for horses and cattle and enjoy working with them any chance I get. After graduating college, I accepted a teaching job in the sandhills of Nebraska where I taught elementary school in a one room school house. This school was in the heart of cattle country and I was surrounded by several big ranches. During my time in Nebraska I was able to work on several ranches where learned a lot about livestock management. It was the time spent helping on these ranches that pushed me toward going back to school to get a degree in agriculture. I recently finished received my master's degree in Agricultural Education. For the last ten years I have been coaching rodeo at Iowa Central Community College.

When I have free time outside of our rodeo season, I enjoy doing anything outside. I am an avid bow hunter and ice fisherman and spend most of the fall sitting in a tree and most of the winter sitting on the ice. I am active in youth rodeo and enjoy working with bucking horses whenever I get the chance.

I am looking forward to my new role teaching this course and I am excited to work with you all this semester. If you have any questions throughout the course of the semester, please do not hesitate to ask.

Major Assignments

Feed Marketing Video

Students will research a type of feed on the internet or go into a feed store and look at the ingredients that are included in a bag of feed. The student will them use what they have learned about nutrients from their texts to make a short 2-3-minute sales video explaining why this feed is beneficial to owners and livestock. Be creative! This is worth 30 points!

Interview of a Professional

Students will pick a professional involved in the animal industry. This can include animal caretakers, breeders, buyers, veterinarians, or salesman. The students will conduct an interview with this professional and ask questions from a list that was developed earlier in the course. The interview should take 20-30 minutes so that you get a good understanding of what their job entails and why it is important to the animal industry. After the interview is complete students will write a two-page paper from the results of the interview. Make sure that you relate what the professional does to the animal industry and discuss why it is important. Discuss if you believe this would be a profession that interests you and why or why not. This should be done in 12-point font. If you have difficulties finding a professional to interview, please contact your teacher so that they can assist! This assignment is worth 50 points and is due at the completion of module 7.

Breed Research Paper

Students will pick a breed of animal from any of the species we have discussed in this course. Students will write a four-page research paper about the breed. Include information of the origin of the breed as well as what it is used for and where it is predominately located. This paper should have an introduction, body, and conclusion. It will be double spaced and written in 12-point font in APA format. Please include a full list of references. Students are required to have at least three sources and at least one must be something other than a website. This assignment will be due at the conclusion of module 14. Please start early and if you have any questions email me early so, I can assist you while you still have time to finish the project. The rubric that will be used to grade the paper is listed below.

Breed Research Paper Rubric

	Excellent	Good	Fair	Poor
Introduction (20%)	Student introduces the breed they have chosen to research in a manner that has audience excited about reading the rest of the paper. (18-20 points)	Student introduces the breed that is being written in an adequate manner. (15-17 points)	Student introduces the breed that is being written about but does little to captivate audience. (11-14 points)	Student has little or no introduction to the breed they are writing about. (0-11 points)
Content of research. Where breed originated, characteristics of breed, history of breed, traits of breed. (40%)	Student provides interesting information regarding the breed that was researched. It is apparent student did a lot of research finding interesting information about the breed that is not common knowledge. (35-40 points)	Student provides adequate information regarding the breed that was researched. Provides more than general knowledge about the breed. (29-34 points)	Students provides very basic information about the breed that was researched. (23-28 points)	Student provides little to no information regarding the breed that was researched. (0-22 points)
Conclusion (20%)	Student does an excellent job making conclusions about the information that was presented and how it affects the animal industry. (18-20 points)	Student makes conclusions about the breed that was researched in an adequate manner (15-17 points)	Student makes conclusions regarding the breed that was researched but does not relate it to the animal industry. (11-14 points)	Student makes little to no conclusions regarding the breed that was researched nor how it affects the animal industry. (0-11 points)
Grammar, spelling, sources, and bibliography (20%)	Little to know grammatical or spelling errors, student has at least three quality sources and cites them correctly using APA format. (18-20 points)	Student has limited grammatical and spelling errors, has at least three sources and cites them with limited mistakes using APA format. (15-17 points)	Student has several grammatical and spelling errors, student has sources but does not have the required amount or does not cite them correctly. (11-14 points)	Student has poor grammar and a lot of spelling errors. Student has limited or no sources and does not cite them correctly. (0-11 points)

Quizzes

AGS-113 Quiz 1

Food, shelter, clothing, fuel, and emotional well-being are basic human needs that animal and animal products contribute to.

A. true

B. false

Answer: A

What is the single most important reason for increased food production in the twentieth century?

A. high yields

B. better Genetics

C. agricultural mechanization

D. better draft animals

Answer: C

Developed nations have less of their population economically involved in agriculture than do developing nations.

A. true

B. false

Answer: A

People in developed nations consume less of their daily supply of protein and calories from animal products than people in developing nations.

A. true

B. false

Answer: B

Consumers from which country allocate the smallest share of their disposable income toward the purchase of food?

A. China

B. Canada

C. Mexico

D. United States

Answer: D

What percentage of the world's agricultural land is not suitable for growing crops so instead is used to pasture livestock?

A. 60%

B. 80%

C. 20%

D. 40%

Answer: A

When all members of a house have full access to all the food, they need to live a healthy lifestyle and have the financial resources to do so they are said to be what?

A. food insecure

B. food secure

C. financially stable

D. self-sufficient

Answer: B

In parts of the developing world animals provide as much as 99% of the power for agriculture.

A. true

B. false

Answer: A

Animals in which people derive pleasure from are called what?

A. draft animals

B. pleasure animals

C. companion animals

D. all the above

Answer: C

Amino acids in animal protein more closely match the needs of the human body than those proteins found in plants.

A. true

B. false

Answer: A

AGS-113 Quiz 2

Products from animal agriculture contribute to the trade deficit in the United States.

A. true

B. false

Answer: B

In some countries the most important use of cattle is for draft power rather than for meat and milk.

A. true

B. false

Answer: A

Why have world cattle numbers continued to increase over the last 30 years?

A. increased world population

B. greater demand for beef in developing nations

C. increased export demand

D. all the above

Answer: D

Which of the following is not one of the three phases of beef cattle production?

A. cow-calf

B. replacement heifer

C. stocker-yearling

D. feedlot

Answer: B

Commercial feeders and farmer feeders are the two segments that make up which phase of the beef industry?

A. feedlot

B. cow-calf

C. stocker-yearling

D. None of the above

Answer: A

Which country is the world leader in producing poultry meat?

A. China

B. Mexico

C. Canada

D. United States

Answer: D

Commercial feeders have a greater capacity (more head) than farmer feeders.

A. True

B. False

Answer: A

What country produces the most fluid milk in the world?

A. China

B. Mexico

C. United States

D. None of the above

Answer: C

According to the text which country has the greatest number of horses, donkeys, and mules?

A. China

B. Mexico

C. United States

D. India

Answer: A

What is the leading country in the production of pork production?

A. China

B. Mexico

C. United States

D. India

Answer: A

AGS- 113 Quiz 3

Cell division that yields two daughter cells that have identical chromosomes as compared to the parent cell is called _____?

A. zygote

B. meiosis

C. mitosis

D. osmosis

Answer: C

During gametogenesis, what is the unique type of cell division called which reduces the chromosome number of gametes to one-half of that possessed by all other body cells?

A. zygote

B. meiosis

C. mitosis

D. None of the above

Answer: B

What is the union of sperm and the ovum called?

A. breeding

B. gene

C. fertilization

D. zygote

Answer: C

What is a newly fertilized ovum called?

A. chromosome

B. gene

C. gamete

D. zygote

Answer: D

What is a pair of genes which occupy corresponding loci on homologous chromosomes called?

A: alleles

B. lipids

C. protein

D. RNA

Answer: A

Phenotype=genotype+_____?

A. heritability

B. environment

C. alleles

D. chromosomes

Answer: B

What is the superiority (or inferiority) of animals selected to be parents over the average of the herd called?

A. selection differential

B. superior differential

C. inferior differential

D. cull animal

Answer: A

What is the average age of parents when their offspring are born called?

A. age interval

B. age range

C. generation interval

D. none of the above

Answer: C

Traits that are limited to expression by one sex, such as milk production, are called sex-limited traits.

A. true

B. false

Answer: A

Tandem is the selection procedure that involves selection for multiple traits at a time and is most effective.

A. true

B. false

Answer: B

AGS-113 Quiz 4

Animals that are derived from mating within a single breed are called?

A. crossbred

B. outsourced

C. purebred

D. composite breeds

Answer: C

Increased inbreeding is usually detrimental to reproductive performance.

A. True

B. False

Answer: A

A mild form of inbreeding used to maintain a high genetic relationship to an ancestor is called?

A. purebred

B. crossbreeding

C. intensive breeding

D. linebreeding

Answer: D

What is the most widely used breeding system?

A. linebreeding

B. outcrossing

C. inbreeding

D. crossbreeding

Answer: B

The estimate of the genes two animals has in common because the same ancestors appear in the first six generations is called?

A. genetic relationship

B. composite breeds

C. seedstock

D. grading up

Answer: A

Newly developed breeds that are created from crossing several established breeds is called outcrossing.

A. True

B. False

Answer: B

In cattle, Red Angus is an example of a synthetic or composite breed.

A. True

B. False

Answer: A

The mating of unrelated animals within the same breed is called?

A. inbreeding

B. crossbreeding

C. outcrossing

D. seedstock

Answer: C

_____ is the increase in productivity in the crossbred progeny above the average of breeds or lines that are crossed.

A. heterosis

B. outsourcing

C. purebred

D. seedstock

Answer: A

The continuous used of purebred sires of the same breed in a herd or flock of grade animals to improve genetic composition of the herd or flock is called?

A. heterosis

B. grading up

C. outbreeding

D. intensive breeding

Answer: B

AGS-113 Quiz 5

Any feed constituent that functions in the support of life is called what?

A. protein

B. energy

C. nutrient

D. enzyme

Answer: C

The portion of feed remaining after accounting for the water content is called what?

A. dry matter

b. fat-soluble

c. water weight

d. water-soluble

Answer: A

The determination of the nutrient content of feeds is called what?

A. energy

B. digestibility

C. essential amino acid

D. proximate analysis

Answer: D

What is the classification of animals that eat both meat and plants?

A. Omnivore

B. Herbivore

C. Carnivore

D. all the above

Answer: A

The stomach of ruminants such as cattle, sheep, and goats have 2 compartments.

A. True

B. False

Answer: B

The duodenum, jejunum, and the ileum are three regions of the _____?

A. stomach

b. large intestine

c. small intestine

d. liver

Answer: C

What part of a cow is responsible for the fermentative digestion of microorganisms?

A. crop

B. small intestine

C. colon

D. rumen

Answer: D

The crop in birds is an enlargement of the esophagus that serves as a storage structure for feed.

A. True

B. False

Answer: A

What is the most vital requirement for production of large quantities of milk during lactation?

A. sunlight

B. water

C. energy

D. bedding

Answer: C

Nutrients are needed for which of the following?

A. body maintenance

B. reproduction

C. lactation

D. all the above

Answer: D

AGS-113 Quiz 6

The scientific study of an animal's behavior in response to its natural environment is referred to as _____.

A. ecology

B. anemology

C. sociology

D. ethology

Answer: D

When a foal is helpless and cannot care for itself and it bonds to its mother it is called _____.

A. imprinting

B. nurturing

C. care-giving

D. foaling

Answer: A

Offense, defense, escape, and passive posture are the four stages of _____.

A. training

B. behavior modification

C. establishing social dominance

D. establishing physical dominance

Answer: C

Producers can take advantage of the knowledge of agnostic animal behavior to handle animals in a low stress manner by moving in and out of an animal's _____?

A. eyesight

B. flight zone

C. pen

D. strike zone

Answer: B

To reduce the risk of injury and to keep other animals calm it may be a good idea to cull an animal with a poor disposition from the herd.

A. True

B. False

Answer: A

Standing heat is an example of which type of behavior exhibited by farm animals?

A. agnostic

B. allelomimetic

C. Sexual

D. eliminative

Answer: C

Horses are a type of animal that often display investigative behavior.

A. True

B. False

Answer: A

Training a horse to ride is an example of _____.

A. operant conditioning

B. instinct

C. habituation

D. classical conditioning

Answer: A

There are how many major systems of animal behavior?

A. 3

B. 9

C. 7

D. 15

Answer: B

Pigs becoming carnivorous in a confinement is an example of what kind of behavior?

A. agnostic

B. care-giving

C. maladaptive

D. investigative

Answer: C

AGS-113 Quiz 7

Each of the following are categories of sheep breeds except?

A. mountain breeds

B. ewe breeds

C. ram breeds

D. dual-purpose breeds

Answer: A

The average length of an ewe's estrous cycle is how long?

A. 13-14 days

B. 28-29 days

C. 10-11 days

D. 16-17 days

Answer: D

The gestation period in sheep typically lasts how long?

A. 5 months

B. 7 months

C. 2 months

D. 9 months

Answer: A

Making genetic improvements in economically important traits is the primary goal of sheep breeders.

A. True

B. False

Answer: A

In what regions of the United States are most flocks of sheep and goats located?

A. south and east

B. northeast and midwest

C. west and southwest

D. northwest and midwest

Answer: C

What disease of growing lambs is of concern to commercial feedlot operators?

A. pneumonia

B. coccidiosis

C. tuberculosis

D. overeating disease

Answer: D

_____ is the most common limiting factor in the diet of ewes.

A. protein

B. lipids

C. energy

D. rest

Answer: C

When is the typical breeding season for sheep?

A. winter

B. fall

C. spring

D. summer

Answer: B

At what age and weight are commercial slaughter lambs typically finished?

A. 50-80 days and 80 pounds

B. 150-180 days and 180 pounds

C. 90-120 days and 120 pounds

D. 170-200 days and 200 pounds

Answer: C

When making breeding decisions what is the typical number of ewes a mature ram will breed in a 60-day period?

A. up to 15

B. up to 10

C. up to 20

D. up to 35

Answer: D

AGS-113 Quiz 8

_____ measures the growth from weaning to a finished weight.

A. weaning growth

B. live weight

C. carcass weight

D. postweaning growth

Answer: D

What were the three major breeds of beef cattle in the United States during the early 1900's?

A. shorthorn, angus, and hereford

B. shorthorn, brahman, and brangus

C. angus, brahman, and brangus

D. red angus, charolais, and limousin

Answer: A

According to the text what are the four most important breeds of cattle in the United States today?

A. brangus, angus, hereford, and shorthorn

B. angus, Hereford, limousin, and beefmaster

C. gelbvieh, charolais, simmental, and angus

D. red angus, charolais, simmental, and brahman

Answer: B

The pounds of feed required per pound of live weight gain is referred to as what?

A. feed efficiency

B. postweaning growth

C. weight gain

D. carcass merit

When selecting replacement heifers, a producer should look for all the following except what?

A. conceive early in breeding season

B. calve easily

C. wean heavy calves

D. handle easily

Answer: D

At what age should be heifers first be bred and first calved

A. bred at 12 months to calve at 21 months

B. bred at 12 months to calve at 2 years

C. bred at 15 months to calve at 2 years

D. bred at 2 years to calve at 2.5 years

Answer: C

What is a typical cow-to-bull ration for pasture breeding?

A. 30 to 1

B. 20 to 1

C. 50 to 1

D. 100 to 1

Answer: A

If you have a high weaning percentage what affect does that have on your break-even price?

A. it increases break-even price

B. it reduces break-even price

C. break-even price remains the same

D. there is no correlation between weaning percentage and break-even price

Answer: B

What are nonfeed costs per pound of gain referred to?

A. operating costs

B. gain costs

C. yardage

D. expenses

Answer: C

Calves born early in the calving season are lighter because they typically are exposed to harsher weather conditions than calves born later.

A. True

B. False

Answer: B

AGS -113 Quiz 9

Most dairy cattle in the United States are purebred because crossbred cattle do not approach the high levels of milk production that purebred cattle do.

A. True

B. False

Answer: A

Which breed of dairy cattle is most popular?

A. Ayrshire

B. Brown Swiss

C. Holstein

D. Guernsey Jersey

Answer: C

Efficiency of milk production per 100 pounds of body weight is about the same for the major breeds of dairy cattle. Which breed of dairy cattle produces the most milk if they all produce at same rate?

A. Holstein

B. Red and White

C. Brown Swiss

D. Ayrshire

Answer: A

Breeders use _____ as an evaluation tool to enhance selection for high-producing cows with the durability to stay productive.

A. PTAT

B. supervised test

C. unsupervised test

D. linear classification system

Answer: D

Milk production has improved tremendously over the last 50 years. What is responsible for this improvement?

A. greater milking technology

B. an increased number of cows

C. improved management and breeding

D. more dairy farms

Answer: C

When should a dairy heifer first be bred?

A. 15 months

B. 12 months

C. 20 months

D. 24 months

Answer: A

What is the standard length of lactation period in dairy cattle in the United States?

A. 150 days

B. 200 days

C. 305 days

D. 365 days

Answer: C

To allow proper improvements of body condition and regeneration of mammary tissue cows should be allowed dry periods for what length of time?

A. 20-30 days

B. 50-60 days

C. 80-100 days

D. 130-150 days

Answer: B

A ration in which silages and roughages are mixed together and fed together is called what?

A. complete forage ration

B. roughage pellet ration

C. total mixed ration

D. diary grain ration

Answer: C

What is one way that a dairy can help prevent mastitis?

A. give longer dry periods

B. cull cows with mastitis

C. remove milking equipment immediately when done

D. choose replacement cattle with genetic differences from those with mastitis

Answer: C

AGS-113 Quiz 10

What is the typical length of the estrous cycle of mares?

A. 15 days

B. 21 days

C. 28 days

D. 31 days

Answer: B

Any defect that hinders the performance of a horse making it less useful is called what?

A. sickness

B. a nag

C. unsoundness

D. a blemish

Answer: C

A horse's hoof will typically grow 1/4"-1/2" per month. How often does the horses hooves typically need trimming?

A. 2-4 weeks

B. 4-6 weeks

C. 6-8 weeks

D. 8-10 weeks

Answer: C

What is the gestation period in horses?

A. 8 months

B. 9 months

C. 10 months

D. 11 months

Answer: D

How different gaits do horses have?

A. 7

B. 8

C. 9

D. 10

Answer: A

Most horses in the United States are underfed.

A. True

B. False

Answer: B

What disorder may result from overfeeding grain or lush green pasture to horses?

A. stifle

B. strangles

C. founder

D. influenza

Answer: C

_____ is the most stressful nutritional period for a mare.

A. estrous

B. performance

C. pregnancy

D. lactation

Answer: D

A diet of alfalfa and wheat grass would indicate the horse lives in which part of the country?

A. great plains or intermountain west

B. northeast

C. southwest

D. pacific northwest

Answer: A

Horses used for riding or working need more _____ in their diet than those that are not working.

A. roughage

B. protein

C. minerals

D. energy

Answer: D

AGS-113 Quiz 11

Mohair comes from which of the following animals?

A. sheep

B. rams

C. angora goats

D. boar goats

Answer: C

Wool and hair come from which structure located on the outer layer of skin?

A. follicle

B. cuticle

C. medulla

D. sweat gland

Answer: A

The length of wool fibers on sheep at shearing is referred to as what?

A. felting length

B. crimping length

C. wool fiber

D. staple length

Answer: D

_____ and _____ are types of undesirable fibers that are hollow and brittle and are produced by primary follicles rather than secondary follicles.

A. fleece weight and staple length

B. root bulb and core samples

C. mohair and wool

D. kemp and medullated

Answer: D

Which two breeds of sheep produce the finest grade of wool?

A. Merino and Rambouillet

B. Afrino and Alai

C. American Black Belly and Arabi

D. Charolais and Nellore

Answer: A

United States numerical grades of pork carcasses estimate the lean cut yield of each of the following except?

A. ham

B. loin

C. flank

D. boston shoulder

Answer: C

Slaughter cattle are separated into market classes based upon which two characteristics?

A. age and weight

B. age and sex

C. sex and weight

D. grade and sex

Answer: B

Lamb carcass yield grades estimate the yield of boneless, closely-trimmed retail cuts from which of the following body parts?

A. neck

B. loin

C. flank

D. rump

Answer: B

What process is used to appraise the interior quality of table eggs from chickens?

A. candling

B. maturity

C. marbling

D. marketing

Answer: A

The United States Department of Agriculture (USDA) classes and grades make the marketing process simpler and more easily communicated.

A. True

B. False

Answer: A

Exams

AGS-113 Exam 1

Please read the questions carefully and choose the best possible answer for the multiple-choice questions (4 points each). Answer the short answer questions completely and refer to information you learned in the course (10 points each). Good Luck!

What is the single most important reason for increased food production in the twentieth century?

A. high yields

B. better Genetics

C. agricultural mechanization

D. better draft animals

Answer: C

Consumers from which country allocate the smallest share of their disposable income toward the purchase of food?

A. China

B. Canada

C. Mexico

D. United States

Answer: D

What percentage of the world's agricultural land is not suitable for growing crops so instead is used to pasture livestock?

A. 60%

B. 80%

C. 20%

D. 40%

Answer: A

When all members of a house have full access to all the food, they need to live a healthy lifestyle and have the financial resources to do so they are said to be what?

A. food insecure

B. food secure

C. financially stable

D. self-sufficient

Answer: B

Which of the following is not one of the three phases of beef cattle production?

A. cow-calf

B. fat cattle

C. stocker-yearling

D. feedlot

Answer: B

Which country is the world leader in producing poultry meat?

A. China

B. Mexico

C. Canada

D. United States

Answer: D

What country produces the most fluid milk in the world?

A. China

B. Mexico

C. United States

D. None of the above

Answer: C

Commercial feeders and farmer feeders are the two segments that make up which phase of the beef industry?

A. feedlot

B. cow-calf

C. stocker-yearling

D. breeders

Answer: A

What is the union of sperm and the ovum called?

A. breeding

B. gene

C. fertilization

D. zygote

Answer: C

What is a newly fertilized ovum called?

A. chromosome

B. gene

C. gamete

D. zygote

Answer: D

Phenotype=genotype+_____?

A. heritability

B. environment

C. alleles

D. chromosomes

Answer: B

What is the superiority (or inferiority) of animals selected to be parents over the average of the herd called?

A. selection differential

B. superior differential

C. inferior differential

D. cull animal

Answer: A

The estimate of the genes two animals has in common because the same ancestors appear in the first six generations is called?

A. genetic relationship

B. composite breeds

C. seedstock

D. grading up

Answer: A

What is the most widely used breeding system?

A. linebreeding

B. outcrossing

C. inbreeding

D. crossbreeding

Answer: B

Animals that are derived from mating within a single breed are called?

A. crossbred

B. outsourced

C. purebred

D. composite breeds

Answer: C

The continuous used of purebred sires of the same breed in a herd or flock of grade animals to improve genetic composition of the herd or flock is called?

A. heterosis

B. grading up

C. outbreeding

D. intensive breeding

Answer: B

In relation to estrus when should insemination occur?

A. insemination and estrus are not related

B. timing does not matter

C. beginning of estrus

D. end of estrus

Answer: D

Permitting the extensive use of outstanding sires to optimize genetic improvement is the primary advantage of what?

A. linebreeding

B. artificial insemination

C. estrus synchronization

D. embryo transfer

Answer: B

What hormone is responsible for sex drive or libido in males?

A. estrogen

B. adrenaline

C. testosterone

D. endocrine

Answer: C

What is the termination of pregnancy ending in birth?

A. parturition

B. ovulation

C. insemination

D. abortion

Answer: A

Short Answer (10 points each)

1. What is inbreeding? What are the advantages and disadvantages of using this breeding method?

2. Why would crossbreeding be selected when breeding animals rather than outcrossing?

AGS-113 Exam 2

Please read the questions carefully and choose the best possible answer for the multiple-choice questions (4 points each). Answer the short answer questions completely and refer to information you learned in the course (10 points each). Good Luck!

The portion of feed remaining after accounting for the water content is called what?

A. dry matter

b. fat-soluble

c. water weight

d. water-soluble

Answer: A

The determination of the nutrient content of feeds is called what?

A. energy

B. digestibility

C. essential amino acid

D. proximate analysis

Answer: D

What is the classification of animals that eat only plants?

A. Omnivore

B. Herbivore

C. Carnivore

D. all of these

Answer: B

What part of a cow is responsible for the fermentative digestion of microorganisms?

A. crop

B. small intestine

C. colon

D. rumen

Answer: D

What is the most vital requirement for production of large quantities of milk during lactation?

A. sunlight

B. water

C. energy

D. bedding

Answer: C

The scientific study of an animal's behavior in response to its natural environment is referred to as _____.

A. ecology

B. anemology

C. sociology

D. ethology

Answer: D

Producers can take advantage of the knowledge of agnostic animal behavior to handle animals in a low stress manner by moving in and out of an animal's _____?

A. eyesight

B. flight zone

C. pen

D. strike zone

Answer: B

Standing heat is an example of which type of behavior exhibited by farm animals?

A. agnostic

B. allelomimetic

C. Sexual

D. eliminative

Answer: C

There are how many major systems of animal behavior?

A. 3

B. 9

C. 7

D. 15

Answer: B

Pigs becoming carnivorous in a confinement is an example of what kind of behavior?

A. agnostic

B. care-giving

C. maladaptive

D. investigative

Answer: C

At what age and weight are commercial slaughter lambs typically finished?

A. 50-80 days and 80 pounds

B. 150-180 days and 180 pounds

C. 90-120 days and 120 pounds

D. 170-200 days and 200 pounds

Answer: C

When is the typical breeding season for sheep?

A. winter

B. fall

C. spring

D. summer

Answer: B

The gestation period in sheep typically lasts how long?

A. 5 months

B. 7 months

C. 2 months

D. 9 months

Answer: A

Each of the following are categories of sheep breeds except?

A. mountain breeds

B. ewe breeds

C. ram breeds

D. dual-purpose breeds

Answer: A

The three most popular breeds of swine in the United States today are?

A. Poland China, Berkshire, and Hampshire

B. Yorkshire, Duroc, and Hampshire

C. Yorkshire, Duroc, and Berkshire

D. Duroc, Hampshire, and Berkshire

Answer: B

Litter size, pigs weaned per liter, 21-day liter weight, and number of litters per sow per year are all measures of what?

A. boar productivity

B. management practices

C. sow productivity

D. farm productivity

Answer: C

The two basic crossbreeding systems for swine are?

A. traditional cross and terminal cross

B. rotational cross and traditional cross

C. rotational cross and guilt cross

D. rotational cross and terminal cross

Answer: D

What percentage of market hogs were conceived via artificial insemination?

A. 10-30%

B. 30-50%

C. 40-60%

D. 70-90%

Answer: D

What swine breed has the best carcass traits?

A. Yorkshire

B. Hampshire

C. Chester White

D. Landrace

Answer: B

Boars will contribute what percentage of genetic composition of a herd over several generations?

A. 80-90%

B. 60-70%

C. 40-50%

D. 20-30%

Answer: A

Short Answer Questions (10 points each)

1. What are the four basic production steps in swine production and what are the five primary types of swine operations?

2. Name two things that were discussed during the video from Dr. Wedel that effect biosecurity in the swine industry.

AGS-113 Exam 3

Please read the questions carefully and choose the best possible answer for the multiple-choice questions (4 points each). Answer the short answer questions completely and refer to information you learned in the course (10 points each). Good Luck!

What is a typical cow-to-bull ration for pasture breeding?

A. 30 to 1

B. 20 to 1

C. 50 to 1

D. 100 to 1

Answer: A

The pounds of feed required per pound of live weight gain is referred to as what?

A. feed efficiency

B. postweaning growth

C. weight gain

D. carcass merit

Answer: A

At what age should be heifers first be bred and first calved

A. bred at 12 months to calve at 21 months

B. bred at 12 months to calve at 2 years

C. bred at 15 months to calve at 2 years

D. bred at 2 years to calve at 2.5 years

Answer: C

_____ measures the growth from weaning to a finished weight.

A. weaning growth

B. live weight

C. carcass weight

D. postweaning growth

Answer: D

What are nonfeed costs per pound of gain referred to?

A. operating costs

B. gain costs

C. yardage

D. expenses

Answer: C

If you have a high weaning percentage what affect does that have on your break-even price?

A. it increases break-even price

B. it reduces break-even price

C. break-even price remains the same

D. there is no correlation between weaning percentage and break-even price

Answer: B

What is one way that a dairy can help prevent mastitis?

A. give longer dry periods

B. cull cows with mastitis

C. remove milking equipment immediately when done

D. choose replacement cattle with genetic differences from those with mastitis

Answer: C

When should a dairy heifer first be bred?

A. 15 months

B. 12 months

C. 20 months

D. 24 months

Answer: A

Milk production has improved tremendously over the last 50 years. What is responsible for this improvement?

A. greater milking technology

B. an increased number of cows

C. improved management and breeding

D. more dairy farms

Answer: C

To allow proper improvements of body condition and regeneration of mammary tissue cows should be allowed dry periods for what length of time?

A. 20-30 days

B. 50-60 days

C. 80-100 days

D. 130-150 days

Answer: B

Efficiency of milk production per 100 pounds of body weight is about the same for the major breeds of dairy cattle. Which breed of dairy cattle produces the most milk if they all produce at the same rate?

A. Holstein

B. Red and White

C. Brown Swiss

D. Ayrshire

Answer: A

_____ is the most stressful nutritional period for a mare.

A. estrous

B. performance

C. pregnancy

D. lactation

Answer: D

What disorder may result from overfeeding grain or lush green pasture to horses?

A. stifle

B. strangles

C. founder

D. influenza

Answer: C

How different gaits do horses have?

A. 7

B. 8

C. 9

D. 10

Answer: A

What is the gestation period in horses?

A. 8 months

B. 9 months

C. 10 months

D. 11 months

Answer: D

A horse's hoof will typically grow 1/4"-1/2" per month. How often does the horses hooves typically need trimming?

A. 2-4 weeks

B. 4-6 weeks

C. 6-8 weeks

D. 8-10 weeks

Answer: C

Removal of about one-half of upper portion of the beak and a small portion of the lower beak is a common management practice in the poultry industry to prevent what?

A. cannibalism

B. over-eating

C. influenza

D. rickets

Answer: A

Quantitative traits are more important that qualitative traits in the poultry industry.

A. True

B. False

Answer: A

Feed accounts for what percentage of the total costs of poultry production?

A. 50%-60%

B. 60%-70%

C. 70%-80%

D. 80%-90%

Answer: B

The incubation period for chickens is how many days?

A. 17

B. 19

C. 21

D. 23

Answer: C

Short Answer (10 points each)

1. If you have a weaned calf crop percent of 85% with an annual cow cost of $300 and a weaning weight of 400 lbs. what is your Break-Even price. How would an increase in your weaned calf crop percent affect your break-even price?

2. What are the 7 gaits of the horse from slowest to fastest?

AGS-113 Final Exam

Please read the questions carefully and choose the best possible answer for the multiple-choice questions (3 points each). Answer the short answer questions completely and refer to information you learned in the course (5 points each). Good Luck!

Food, shelter, clothing, fuel, and emotional well-being are basic human needs that animal and animal products contribute to.

A. true

B. false

Answer: A

Consumers from which country allocate the smallest share of their disposable income toward the purchase of food?

A. China

B. Canada

C. Mexico

D. United States

Answer: D

Which of the following is not one of the three phases of beef cattle production?

A. cow-calf

B. stocker-grower

C. stocker-yearling

D. feedlot

Answer: B

What is the leading country in the production of pork production?

A. China

B. Mexico

C. United States

D. India

Answer: A

What is a newly fertilized ovum called?

A. chromosome

B. gene

C. gamete

D. zygote

Answer: D

Phenotype=genotype+_____?

A. heritability

B. environment

C. alleles

D. chromosomes

Answer: B

What is the most widely used breeding system?

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B. outcrossing

C. inbreeding

D. crossbreeding

Answer: B

The determination of the nutrient content of feeds is called what?

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B. digestibility

C. essential amino acid

D. proximate analysis

Answer: D

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B. small intestine

C. colon

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C. 20 months

D. 24 months

Answer: A

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B. performance

C. pregnancy

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Answer: D

How different gaits do horses have?

A. 7

B. 8

C. 9

D. 10

Answer: A

The incubation period for chickens is how many days?

A. 17

B. 19

C. 21

D. 23

Answer: C

The application of physical, chemical, and engineering principles to biological system is called what?

A. ecology

b. biology

c. biotechnology

d. microbiology

Answer: C

Animal welfare is the belief that animals have rights and should not be used for food or for entertainment.

A. True

B. False

Answer: B

Much of the public believes that the greatest food safety threats come from the use of pesticides, hormones, and other food additives.

A. True

B. False

Answer: A

In today's media-dominated environment it is common where sensationalized headlines may recommend changes that offer quick-fix promises and describe foods and good versus bad. This is referred to as what?

A. bad publicity

B. false advertising

C. media favoritism

D. junk science

Answer: D

Short Answer (5 points each)

1. Explain how the number of horses and cattle have change in the United States since World War II.

2. What are the 9 major systems or patterns of animal behavior?

3. How is energy obtained from feed nutrients?

4. Name and explain the four primary types of swine production.

5. What is the difference between animal welfare and animal rights? Which one is more commonly associated with the animal industry?